

Ziad Hassanin

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Skills

- Python | Go | Bash | Kubernetes | Docker | AWS | Terraform | Ansible | Helm | Kustomize | Jenkins | Github Actions | ArgoCD | Istio
- Prometheus | Loki | Grafana | OpenTelemetry | Jaeger | Ubuntu | Red Hat | Django | FastAPI | Nginx | PostgreSQL | Redis | AlpineJS
- Git | Modular Monolith | Microservices | Distributed Systems | English 'C1' | First aid

Experience

Teaching Assistant

Cairo University

Giza, Egypt || 10/2023 - 01/2024

- Managed 70 students across two course sections. Updated and maintained course materials, including 14 weekly labs, quizzes, and a lab exam. Utilized **Python Manim** for concept visualizations enhancing students' understanding and engagement.
- Supervised six final course projects, each involving teams of four, guiding each project development and ensuring successful completion.
- Created the initial course website (cmeps446.sreboy.com), serving as a central resource for course information and materials.

Junior Site Reliability Engineer

SilverKey Technologies

Remote, Egypt || 07/2022 - 08/2023

- Administered one internal linux server and two windows **production** servers. Ensuring monitored optimal performance and reliability.
- Utilized **WinSCP** and **PowerShell** to automate migration of 800 GB data from an old windows server to a new one with zero down time.
- Conducted extensive research and maintained company's choice of an open-source API management solution: **Kong**, **Apache APISIX** and **WSO2**. More details available at: github.com/ZiadMansourM/OS-APIM.
- Diagnosed, traced and fixed one of the company's internal tools which was failing silently. Improving operational efficiency.
- Automated cleaning process and management of the company's private docker registry and CI server using **Bash**.
- Efficiently managed two critical outages while on-call, and managed to accept, identify, investigate, diagnose and respond in less than 30 minutes and implemented preventive automated solutions for similar future incidents.

Education

Semester Abroad

San José State University

San José, CA, USA || 01/2022 - 06/2022

- Fully funded by **USAID**, Resident of **SJSU** International House home for 63 international students from 25 countries. **GPA: 3.325**.

Bachelor of Computer Engineering

Cairo University

Giza, Egypt || 08/2018 - 05/2023

- Fully funded by **USAID**, under supervision of **Amideast** Egypt. GPA: 3.12 and Highest GPA: 3.48.

Achievements

Received two prestigious full scholarships from **USAID**, administered by **Amideast** Egypt, with a combined worth of over **160k USD**:

- Higher Education Initiative full bachelor's degree scholarship, distinguished by its highly competitive **1.6%** national acceptance rate.
- **(2x)** Awesome Student of The Cohort - HEI: proud that I was selected two times. Only seven students are selected each semester.
- English Access Microscholarship: acceptance rate was **20%**.

Blog

They say "to master a new technology, you will have to play with it". You can access my blog at notes.sreboy.com/blog:

- **Terraformed Odyssey: From Code to Day Two Operations and Beyond**: Terraform, EKS, IRSA with OIDC, Ingress, Cert Manager, Helm, ArgoCD, Kube Prometheus Stack, Multi-Arch Docker Images, Route53, Custom Grafana Dashboards and Mermaid.
- **Docker Engine Under The Hood**: Cgroups, Namespaces, pivot_root, capabilities, seccomp-bpf, overlay filesystems, docker networks.
- **High Availability Kubernetes Cluster From Scratch**: Terraform, Ansible, Prometheus, Grafana, external etcd topology.
- **Internal & External Ingress Nginx Controllers with Google's Online Boutique**: Route53 private zone, OpenVPN, Helm, Cert Manager.

Projects

- ScanMate 'graduation project': multi-view close range 3d scanning app. More at: github.com/ZiadMansourM/photogrammetry.
- Cheapbot: Certbot plugin to automate **dns-01** challenge for Namecheap. More at: github.com/ZiadMansourM/cheapbot.
- Fstr: akin to Python's f-strings, Go utility that simplifies string formatting with interpolation. More at: github.com/ZiadMansourM/fstr.
- In Depth Analysis and Comparison of Parallelism Techniques in Python and Go **'Talk'**: github.com/ZiadMansourM/concurrency-parallelism.
- Smart Settings: Inspired by Django, handle your project's settings in a pythonic way. More at: github.com/ZiadMansourM/settings.

REFERENCES

- Eng. Hager Sameh Tantawy - Senior Data Engineer at VOIS: linkedin.com/in/hagartantawy - hager.sameh@vodafone.com
- Eng. Rahma Yasser - Data Engineer at CIB: linkedin.com/in/rahma-yasser-419419186 - rahma.allah@cibeg.com